

# KAJIAN TENTANG SISTEM PENGOLAHAN LIMBAH PADA INDUSTRI ALKOHOL DI DESA BEKONANG KECAMATAN MOJOLABAN KABUPATEN SUKOHARJO

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Industri alkohol yang ada di Desa Bekonang dalam kegiatan sehari-hari menghasilkan limbah yang berupa limbah cair dan limbah padat (lumpur), limbah tersebut jika dibuang langsung tanpa melalui pengolahan dapat membahayakan manusia dan lingkungan. Tujuan penelitian ini adalah untuk mengetahui sistem pengolahan limbah pada industri alkohol di Desa Bekonang Kecamatan Mojolaban Kabupaten Sukoharjo. Jenis penelitian ini adalah penelitian Deskriptif dengan menggunakan pendekatan *crosssectional* yaitu menggambarkan keadaan sesaat melalui analisa primer tentang sistem pengolahan limbah cair dan lumpur. Metode yang digunakan adalah dengan melalui studi literatur, pengambilan dan pengujian sampel serta menganalisa data dan melakukan pembahasan berdasarkan teori yang ada. Hasil penelitian menunjukkan jumlah limbah cair setiap produksi yang dihasilkan rata-rata 44,2 liter/hari dan jumlah lumpur yang dihasilkan rata-rata 4,25 liter /hari. Kualitas limbah cair di Unit Pengolahan Air Limbah yang ada di Desa Bekonang Kecamatan Mojolaban Kabupaten Sukoharjo mempunyai kadar  $BOD_5 = 55.000 \text{ mg/l}$ , kadar  $COD = 170.316 \text{ mg/l}$  dan kadar  $TSS = 5.640 \text{ mg/l}$ . Hal ini masih berada diatas nilai baku mutu limbah cair yaitu Keputusan Menteri Negara Lingkungan Hidup No.KEP-51/MEN LH/10/1995 tentang Baku Mutu Limbah Cair Bagi Kegiatan Industri yaitu untuk kadar  $BOD = 150 \text{ mg/l}$ , kadar  $COD = 300 \text{ mg/l}$  dan kadar  $TSS = 100 \text{ mg/l}$ .

Kemampuan UPAL dari segi pengolahan kualitas limbah cair untuk parameter BOD, COD dan TSS masih kurang baik dan diperlukan penanganan yang lebih maksimal. Limbah padat yang berupa lumpur juga diperlukan pengolahan sehingga lumpur tersebut bisa bermanfaat dan tidak membahayakan lingkungan sekitar

**Kata Kunci:** limbah cair, lumpur, sistem pengolahan, industri alkohol

*OBSERVATION ON WASTE TREATMENT SYSTEM IN THE ALCOHOL  
INDUSTRY AT BEKONANG VILLAGE MOJOLABAN SUBDISTRICT, DISTRICT OF  
SUKOHARJO*

*Alcohol industry at Bekonang village, at its daily activity could produce wastes liquid waste and sludge. Those wastes could endanger human life and environment when they are channeled on the environment without managed before. This research is aimed to find out the waste treatment system in the alcohol industry at Bekonang village Mojolaban subdistrict, district of Sukoharjo.*

*This research is classified as descriptive research with cross sectional approach, which explain a temporary condition through primary analysis on waste treatment system. The methods used are literature study, sample collection and testing, data analysing and discussing based on existing theory. The result show that the amount of liquid waste on each production is 44,2 liters/day and the amount of sludge is 4,25 liters/day for every industry. Liquid waste processed at Liquid Waste Processing Unit at Bekonang Village Mojolaban Subdistrict, District of Sukoharjo has the amount of BOD<sub>5</sub> = 55.000 mg/l, COD = 170.316 mg/l, and TSS = 5640 mg/l. This quality is still qualifying liquid waste grade standard based on Decree of Minister of Environment number KEP.51/MEN LH/ 10/1995 on Liquid Waste Grade Standard of Industrial Activity which has BOD = 150 mg/l, COD = 300 mg/l and TSS = 100 mg/l. The capability of liquid waste processing unit is not good enough based on quality treatment of BOD, COD & TSS and a more advanced treatment is still needed. For solid waste sludge a treatment is also needed, so that those sludge could give benefid and would not endanger surround environment.*

*Keyword : Liquid waste, sludge, treatment system, alcohol industry*